

**Appl. No.** : **10/773,628**  
**Filed** : **February 5, 2004**

### **AMENDED CLAIMS**

1. – 45. (Cancelled)

46. (New) An isolated glycoconjugate peptide comprising a binding fragment of a CD4 receptor for HIV gp120 synthetically conjugated to gal  $\alpha$  (1,3) gal  $\beta$ .

47. (New) The isolated glycoconjugate peptide of Claim 46, wherein said glycoconjugate peptide is linear.

48. (New) The isolated glycoconjugate peptide of Claim 46, wherein said gal  $\alpha$  (1,3) gal  $\beta$  is synthetically conjugated to said binding fragment of a CD4 receptor for HIV gp120 by attachment at one amino acid.

49. (New) The isolated glycoconjugate peptide of Claim 46, wherein said binding fragment of a CD4 receptor for HIV gp120 is less than 200 amino acids in length.

50. (New) The isolated glycoconjugate peptide of Claim 46, wherein said binding fragment of a CD4 receptor for HIV gp120 is less than 150 amino acids in length.

51. (New) The isolated glycoconjugate peptide of Claim 46, wherein said binding fragment of a CD4 receptor for HIV gp120 is less than 100 amino acids in length.

52. (New) The isolated glycoconjugate peptide of Claim 46, wherein said binding fragment of a CD4 receptor for HIV gp120 is less than 50 amino acids in length.

53. (New) The isolated glycoconjugate peptide of Claim 46, wherein said binding fragment of a CD4 receptor for HIV gp120 is less than 25 amino acids in length.

54. (New) The isolated glycoconjugate peptide of Claim 46, wherein said binding fragment of a CD4 receptor for HIV gp120 is less than or equal to 15 amino acids in length.

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55. (New) The isolated glycoconjugate peptide of Claim 46, wherein said gal  $\alpha$  (1,3) gal  $\beta$  is synthetically conjugated to a hydroxylated amino acid.

56. (New) The isolated glycoconjugate peptide of Claim 46, wherein said gal  $\alpha$  (1,3) gal  $\beta$  is synthetically conjugated by an  $\text{NH}_2$ -linkage.

57. (New) The isolated glycoconjugate peptide of Claim 46, wherein said gal  $\alpha$  (1,3) gal  $\beta$  is synthetically conjugated to the N-terminal end of said binding fragment of a CD4 receptor for HIV gp120.

58. (New) The isolated glycoconjugate peptide of Claim 48, wherein said gal  $\alpha$  (1,3) gal  $\beta$  is synthetically conjugated to a hydroxylated amino acid.

59. (New) The isolated glycoconjugate peptide of Claim 48, wherein said gal  $\alpha$  (1,3) gal  $\beta$  is synthetically conjugated by an  $\text{NH}_2$ -linkage.

60. (New) The isolated glycoconjugate peptide of Claim 48, wherein said gal  $\alpha$  (1,3) gal  $\beta$  is synthetically conjugated to the N-terminal end of said binding fragment of a CD4 receptor for HIV gp120.

61. (New) A method of using the glycoconjugate peptide of Claim 46 to bind HIV gp120 comprising:

identifying a subject infected with HIV; and  
providing the glycoconjugate peptide of Claim 46 to said subject.

62. (New) The method of Claim 61, wherein a glycoconjugate peptide of Claim 47 is provided to said subject.

63. (New) The method of Claim 61, wherein a glycoconjugate peptide of Claim 48 is provided to said subject.

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64. (New) The method of Claim 61, wherein a glycoconjugate peptide of Claim 52 is provided to said subject.

65. (New) The method of Claim 61, wherein a glycoconjugate peptide of Claim 55 is provided to said subject.

66. (New) The method of Claim 61, wherein a glycoconjugate peptide of Claim 56 is provided to said subject.

67. (New) The method of Claim 61, wherein a glycoconjugate peptide of Claim 57 is provided to said subject.

68. (New) The method of Claim 61, wherein a glycoconjugate peptide of Claim 58 is provided to said subject.

69. (New) The method of Claim 61, wherein a glycoconjugate peptide of Claim 59 is provided to said subject.

70. (New) The method of Claim 61, wherein a glycoconjugate peptide of Claim 60 is provided to said subject.